

CLAIMS:

1. A communication control method for connecting a telephone that is connected to a communication control device to a telephone line to receive a call with a calling telephone number, comprising:

the communication control device making or breaking a communication path between the telephone and the telephone line and detecting whether the telephone is in an off-hook state or an on-hook state by detecting an off-hook signal of the telephone;

breaking the communication path between the telephone and the telephone line when it is detected that the telephone is in the on-hook state, and executing a calling telephone number reception sequence in the communication control device to obtain the calling telephone number when the call with the calling telephone number is received through the telephone line; and

making the communication path between the telephone and the telephone line when the telephone is detected in the off-hook state.

2. A terminal device connected to a telephone line, comprising:

a calling telephone number receiving unit to execute a calling telephone number reception sequence to obtain a calling telephone number from a call with the calling telephone number through the telephone line;

a setting unit to set whether or not the calling telephone number reception sequence is to be executed in the terminal device;

a connection switching unit to make or break connection between another terminal device connected to the terminal device and the telephone line; and

a control unit to control the connection switching unit to break a communication path between the telephone line and the other terminal device and the calling telephone number receiving unit to execute the calling telephone number reception sequence in the master terminal device, and to control the connection switching unit to make the communication path between the telephone line and the other terminal device and the calling telephone number reception unit not to execute the calling telephone number reception sequence when the setting unit is set not to execute the calling telephone number reception sequence in the master terminal device.

3. A communication control device to connect a common telephone line to a telephone and to a data processing device, comprising:

a calling telephone number detecting unit to detect a calling telephone number from the telephone line;

a connection switching unit to make and break a connection between the telephone and the telephone line; and

a connection switching control unit to control the connection switching unit, wherein the communication control device sets a disconnected state between the telephone and the telephone line using the connection switching control unit and the connection switching unit when the data processing device is in an operating state and transmits a command to make the communication control device obtain the calling telephone number to the communication control device, and the connection switching control unit to notify the data processing device of the detected calling telephone number and the connection switching unit set a connected state between the telephone and the telephone line when the calling telephone number detecting unit detects the calling telephone number.

4. The communication control device according to claim 3, comprising a hook state detecting unit to detect an on-hook or off-hook of the telephone, wherein when the hook state detecting unit detects the off-hook, and when the calling telephone number detecting unit is in the calling telephone number reception waiting state, the connection switching control unit and the connection switching unit set the telephone and the telephone line in the connection state.

5. The communication control device according to claim 3, wherein if the calling telephone number detecting unit is not in the calling telephone number reception waiting state, the connection switching control unit and the connection switching unit set the telephone and the telephone line in the connecting state.

6. The communication control device according to claim 3, wherein when the data processing device finishes the operation, the connection switching control unit and the connection switching unit set the telephone and the telephone line in the connecting state.

7. The communication control device according to claim 3, wherein when the calling telephone number detecting unit has detected the calling telephone number, the connection switching control unit set the telephone and the telephone line in the connecting state.

8. The communication control device according to claim 3, comprising a call detecting unit to detect a call from the telephone line, wherein when the call detecting unit detects a call and when the command from the data processing device is the non-connection command, the connection switching control unit and the connection switching unit detects a call and when the command from the data processing device is the non-connection command, the connection switching control unit and the connection switching unit set the telephone and the telephone line in the disconnecting state.

9. The communication control device according to claim 3, comprising a call detecting unit to detect a call from a telephone line, a hook state detecting unit to detect on-hook or off-hook of the telephone, and a timer to detect a predetermined time, wherein if the hook state detecting unit detects the on-hook and if the timer detects the predetermined time under the set condition where the timer is reset when the call detecting unit detects a call, the connection switching control unit and the connection switching unit set the telephone and the telephone line in the disconnected state.

10. The communication control device according to claim 3, comprising a call detecting unit to detect a call from a telephone line, a hook state detecting unit to detect an on-hook or off-hook of the telephone, and a timer to detect a predetermined time, wherein if the hook state detecting unit detects the off-hook and if the timer detects the predetermined time under the set condition where the timer is reset when the call detecting unit detects a call, the connection switching control unit and the connection switching unit set the telephone and the telephone line in the connecting state.

11. A communication control device that is connected to a telephone line, comprising:

- a connection switching unit to make or break a communication path between a telephone and the telephone line;

- a calling telephone number detecting unit to detect a calling telephone number from the telephone line;

- a detection unit to detect whether the telephone is in an off-hook state or an on-hook state by detecting an off-hook signal of the telephone, wherein

the telephone is disconnected from the telephone line when it is detected that the telephone is in the on-hook state, and the communication control device executes a calling telephone number reception sequence to obtain the calling telephone number when a call with the calling telephone number is received through the telephone line, and a communication path between the telephone and the telephone line is connected when it is detected that the telephone is in the off-hook state.

12. A communication control method for plural terminal devices that are connected to a telephone line to receive a call with a calling telephone number from the telephone line without a contention, comprising:

setting one of the terminal devices as a master terminal device, the master terminal device directly connected to the telephone line and another terminal device connected to the master terminal device,

the master terminal device detecting a signal that is transmitted in connection with a calling telephone number reception sequence executed between the telephone line and the other terminal device; and

monitoring the calling telephone number reception sequence in the master terminal device during execution of the calling telephone number reception sequence between the telephone line and the other terminal device, so as to obtain the calling telephone number in accordance with a detected signal.

13. A terminal device that is connected to a telephone line, comprising:

a connecting unit to connect the telephone line with another terminal device and to detect a signal that is transmitted in connection with a calling telephone number reception sequence executed between the telephone line and the other terminal device so as to output the detected signal; and

a monitoring unit to monitor the calling telephone number reception sequence that is executed between the telephone line and the other terminal device so as to obtain the calling telephone number in accordance with the detected signal.

14. The terminal device according to claim 13, wherein the connecting unit includes a buffer having a high input impedance through which the detected signal is outputted.

15. The terminal device according to claim 13, comprising a start signal detecting unit to detect a start signal of a calling telephone number reception sequence that is

executed between the telephone line and the other terminal device in accordance with the detected signal, wherein the monitoring unit starts the monitoring operation when the start signal detected.

16. The terminal device according to claim 15, comprising a primary response signal detecting unit to detect a primary response signal of a calling telephone number reception sequence that is executed between the telephone line and the other terminal device in accordance with the detected signal, and a calling telephone number receiving unit to execute the calling telephone number reception sequence between the telephone line and itself, wherein the calling telephone number receiving unit executes the calling telephone number reception sequence between the telephone line and itself if the primary response signal is not detected when the calling telephone number reception sequence is executed between the telephone line and the other terminal device.

17. The terminal device according to claim 16, wherein the calling telephone number reception sequence is executed when the primary response signal is not detected in a period from the detection of the start signal until the set time passes.

18. A communication control method for plural terminal devices that are connected to a telephone line to receive a call with a calling telephone number from the telephone line without a contention, comprising :

executing a calling telephone number reception sequence between a master terminal device and the telephone line, the master terminal being a terminal device that is connected directly to the telephone line, so as to obtain a calling telephone number;

memorizing the obtained calling telephone number;

executing the calling telephone number reception sequence between the master terminal device and the other terminal device in accordance with the memorized calling telephone number; and

transmitting the memorized calling telephone number to the other terminal device.

19. A computer readable recording medium storing a program for executing a communication control method for connecting a telephone that is connected to a communication control device to a line, wherein the program controls a switching unit to make or break a communication path between the telephone and the line, a calling telephone number detecting unit to detect a calling number from the telephone line, a detection unit to detect whether the telephone is in an off-hook state or an on-hook state by detecting an off-hook signal of the telephone, such that the telephone is disconnected from the line when it is detected that the telephone is in the on-hook state, and the communication control device executes a calling telephone number reception sequence to obtain the calling telephone number when a call with the calling telephone number is received through the telephone line, and a communication path between the telephone and the telephone line is connected when it is detected that the telephone is in the off-hook state.

20. A computer readable recording medium storing a program for executing a communication control method for plural terminal devices that are connected to a telephone line to receive a call with a calling telephone number from the telephone line without a contention, wherein the program controls a detection of a signal that is transmitted in connection with the calling telephone number reception sequence between the telephone line and the other terminal device, and monitoring the calling telephone number reception sequence so as to obtain a calling telephone number in accordance with the detected signal.

21. A computer readable recording medium storing a program for executing a communication control method for plural terminal devices that are connected to a telephone line to receive a call with a calling telephone number from the telephone line without a contention, wherein the program controls an execution of a calling telephone number reception sequence between the telephone line and itself, memorizing the obtained calling telephone number, and executing the calling telephone number reception sequence between the other terminal device and the master terminal device in accordance with the memorized calling telephone number, so as to transfer the memorized calling telephone number to the other terminal device.